

radiative lifetime, τ

The lifetime of an excited molecular entity in the absence of radiationless transitions. It is the reciprocal of the first-order rate constant for the radiative step, or of the sum of these rate constants if there is more than one such step. The equivalent term, natural lifetime, is discouraged. Approximate expressions exist relating τ to the oscillator strength of the emitting transition.

1996, 68, 2270